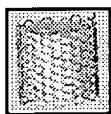


Nanotube Research in David Tománek's Group

Research on carbon nanotubes in my group focusses on modeling the self-assembly and electronic properties of these systems. Recent advances in the synthesis of identical carbon nanotubes with a diameter of 1.4 nm, yet hundreds of microns in length, bear high promise for the application of these advanced materials in next-generation electronic nano-devices. Advanced computational techniques, including large-scale parallelizable molecular dynamics simulations of the growth mechanism and first-principles calculations of the electronic structure, are being applied to model the self-assembly and the electronic properties of these structures. Results will elucidate ways to direct and optimize growth conditions, mechanical and thermal stability, and the usefulness of nanotubes as perfect nanoscale conductors.



... [simulations of carbon nanotubes](#)

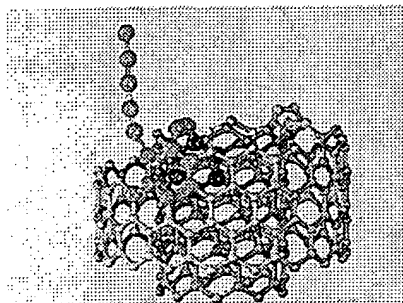


... [general information and press release of David Tomanek's invited talk at the 1997 APS March Meeting](#)

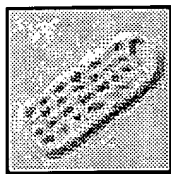
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